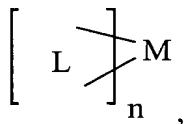


CLAIM AMENDMENTS

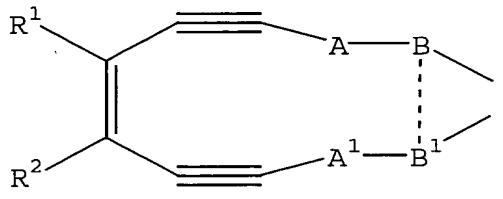
1. (Currently amended) A compound of the formula:



wherein M is a metal selected from the group consisting of Ti, V, Mn, Fe, Co, Ni, Cu, Zn, Ga, Tb, Eu, Gd, Dy, Lu, Zr, Nb, Mo, Te, Ru, Rh, Pd, Ag, Sn, Ta, W, Re, Os, Ir, Pt, and Au;

n is an integer from 1-3;

L is a ligand of the formula:

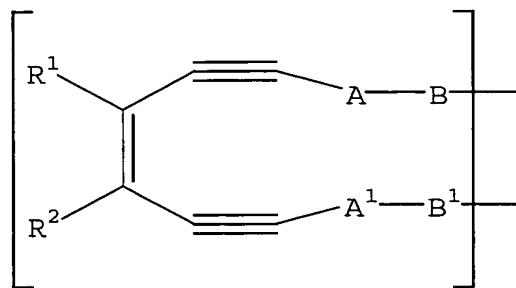


wherein A and A¹ are the same or different and each is independently (CR¹²R¹³)_m, wherein m is an integer from 0 to 6 and wherein R¹² and R¹³ are the same or different and each is hydrogen, halogen, nitro, cyano, azido, an optionally substituted first organic group selected from the group consisting of C₁-C₆ alkyl or aryl, or a first solubilizing group selected from the group consisting of hydroxyl, an amino or acid addition salt thereof, an ammonium salt, sulfonic acid or salt thereof, or carboxylic acid or salt thereof;

B and B¹ are the same or different and each is a substituent comprising a nitrogen-, oxygen-, sulfur-, or phosphorus-containing or oxygen-containing group capable of complexing with M, wherein the dotted line between B and B¹ represents an optional covalent bond linking B and B¹ together;

R¹ and R² are the same or different and each is independently a hydrogen, a linear or branched alkyl, an aralkyl, an aryl, a halogen, a nitro, or a cyano, or R¹ and R² together with the carbons to which they are bonded comprise an aryl, a heterocycle, or a macrocycle, wherein R¹ and R² is unsubstituted or substituted;

wherein when n is 1 or 2, M is optionally complexed with at least one additional ligand other than a ligand of the formula:



or a dimer, an oligomer, or a polymer of said compound, ~~provided that when m is zero, B and B¹ are not both diphenylphosphine groups.~~

2. (Currently amended) The compound of claim 1, wherein at least one of R¹² and R¹³ is the first organic group optionally substituted with a halogen, nitro, cyano, azido, a second organic group selected from the group consisting of C₁-C₆ alkyl or aryl, or a second solubilizing group selected from the group consisting of hydroxyl, an amino or acid addition salt thereof, an ammonium salt, sulfonic acid or salt thereof, or carboxylic acid or salt thereof.

3. (Canceled)

4. (Canceled)

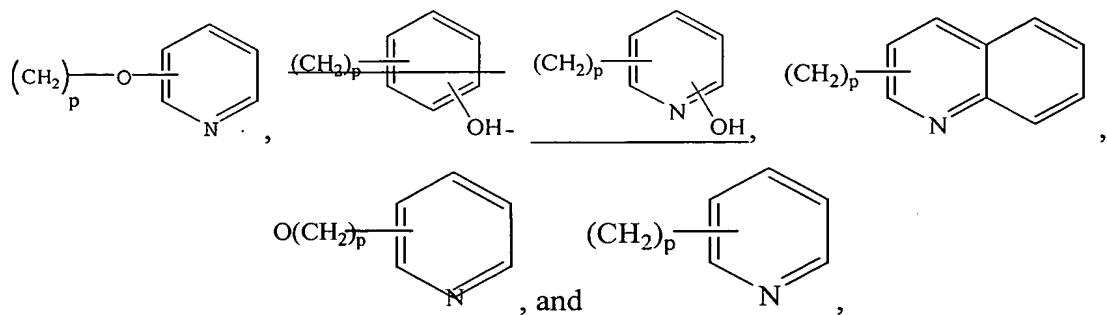
5. (Original) The compound of claim 1, wherein M is copper.

6. (Original) The compound of claim 1, wherein m is 1.

7. (Original) The compound of claim 1, wherein n is 2.

8. (Original) The compound of claim 1, wherein at least one of B and B¹ is a nitrogen-containing group capable of complexing with M.

9. (Currently amended) The compound of claim 1, wherein at least one of B or B¹ is a nitrogen-containing group selected from the group consisting of substituents characterized by the formulas:



and wherein p is an integer from zero to two.

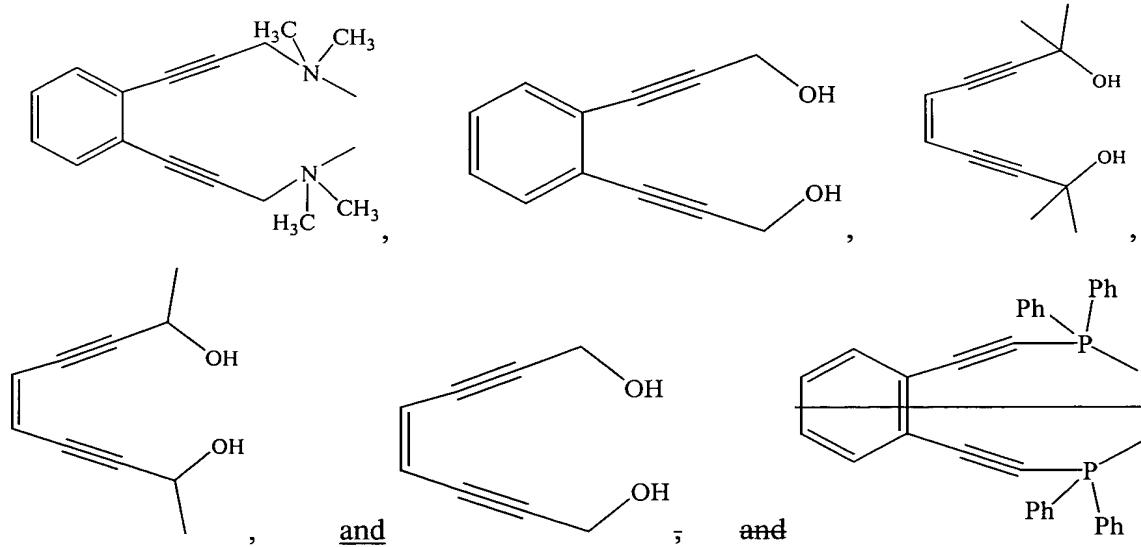
10. (Canceled)

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Currently amended) The compound of claim 1, wherein the compound includes at least one ligand selected from the group consisting of:

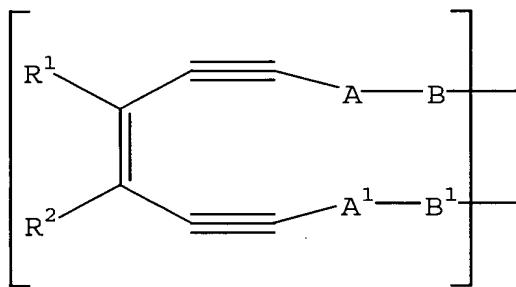


15. (Original) The compound of claim 1, wherein R¹ and R² are the same or different and each is independently selected from the group consisting of hydrogen, an alkyl, an aryl, and an aralkyl, or R¹ and R² together with the carbons to which they are bonded comprise a benzene ring.

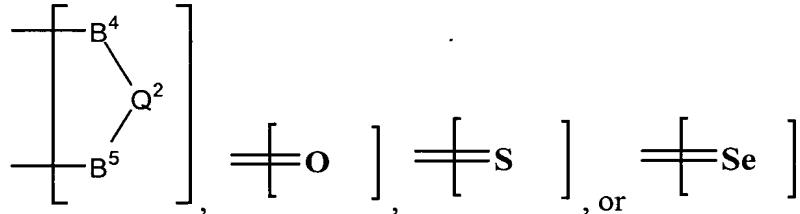
16. (Original) The compound of claim 15, wherein at least one of R¹ or R² is substituted with a substituent selected from the group consisting of a halogen, a nitro, and a cyano.

17. (Original) The compound of claim 15, wherein R¹ and R² are hydrogen.

18. (Original) The compound of claim 1, wherein n is 1 or 2, and M is complexed with at least one additional ligand other than a ligand of the formula:



19. (Original) The compound of claim 18, wherein said at least one additional ligand includes a substituent of the formula:

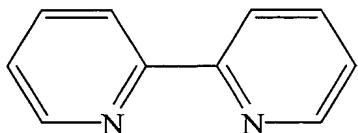


wherein B⁴ and B⁵ are the same or different and each is nitrogen, oxygen, sulfur, or phosphorus; and Q² is an aryl, a heterocycle, a macrocycle, or a C₂-C₆ alkyl spacer, wherein said aryl, heterocycle, or macrocycle is monocyclic or polycyclic and Q² is unsubstituted or substituted.

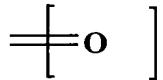
20. (Original) The compound of claim 19, wherein Q² is a heterocycle.

21. (Original) The compound of claim 20, wherein said heterocycle of Q² is polycyclic.

22. (Original) The compound of claim 21, wherein said polycyclic heterocycle of Q² is of the formula:



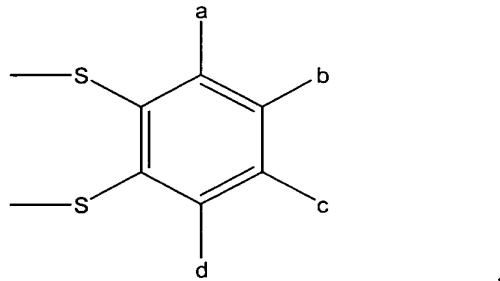
23. (Original) The compound of claim 19, wherein said at least one additional ligand includes a ligand of the formula:



24. (Original) The compound of claim 19, wherein said Q² is bicyclic.

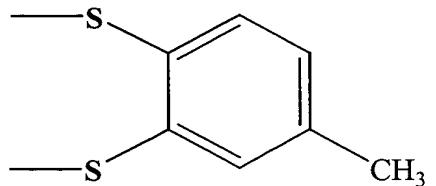
25. (Original) The compound of claim 19, wherein Q² is an aryl.

26. (Original) The compounds of claim 25, wherein said at least one additional ligand includes a ligand of the formula:

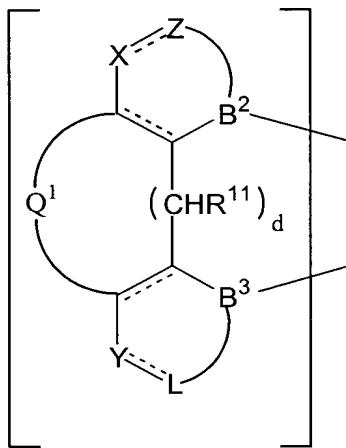


wherein a-d are the same or different and each is selected from the group consisting of hydrogen or alkyl.

27. (Original) The compound of claim 26, wherein said at least one additional ligand includes a ligand of the formula



28. (Original) The compound of claim 1, wherein said at least one additional ligand includes a ligand of the formula



wherein R¹¹ is a hydrogen or a straight chain or branched alkyl;

d is zero or 1;

B² and B³ are the same or different and are independently selected from nitrogen and sulfur;

Z is a contiguous linker which, together with X, B², and the carbons to which they are bonded, forms a 5- or a 6- membered heterocyclic ring;

L is a contiguous linker which, together with Y, B³, and the carbons to which they are bonded, forms a 5- or a 6- membered heterocyclic ring;

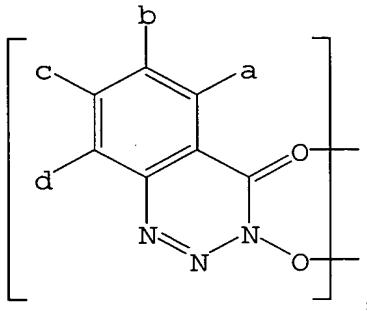
the dotted lines represent double bonds optionally present in said 5- or 6- membered heterocyclic ring;

X is N, NR⁵, or CR⁵, wherein R⁵ is hydrogen, halogen, or straight chain or branched alkyl;

Y is N, NR⁴, or CR⁴, wherein R⁴ is hydrogen, halogen, or straight chain or branched alkyl;

Q¹ is an organic moiety which includes a diazo group capable of photochemically forming a radical species by the loss of N₂.

29. (Original) The compound of claim 1, wherein said at least one additional ligand includes at least one ligand of the formula



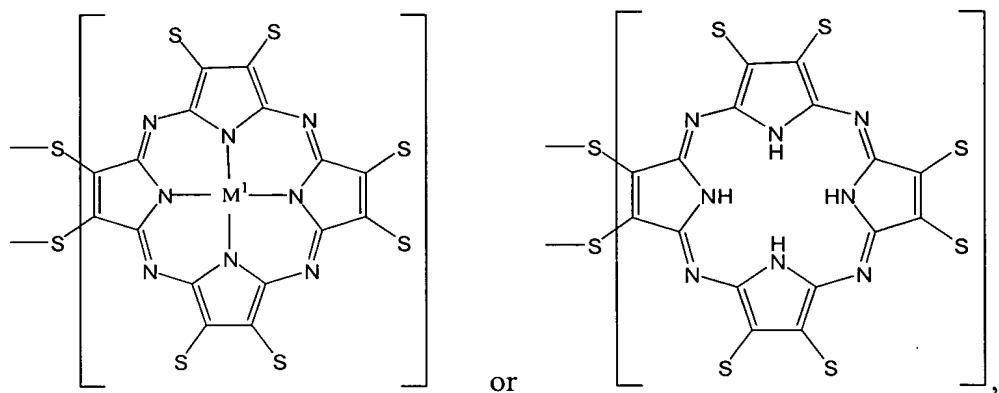
wherein a-d are the same or different and each is hydrogen, halogen, alkyl, OR¹⁰, SR¹⁰, nitro, and cyano, wherein R¹⁰ is hydrogen or straight chain or branched alkyl.

30. (Original) The compound of claim 19, wherein said additional ligand is a macrocycle.

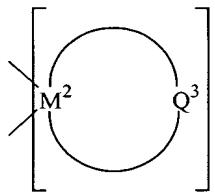
31. (Original) The compound of claim 30, wherein said macrocycle is selected from the group consisting of porphyrins, porphrazines, chlorins, phthalocyanines, texaphyrins, cyclam, and crown ethers.

32. (Original) The compound of claim 31, wherein said macrocycle is a porphyrin or a porphrazine.

33. (Currently amended) The compound of claim 32, wherein said macrocycle is a porphrazine of the formula:

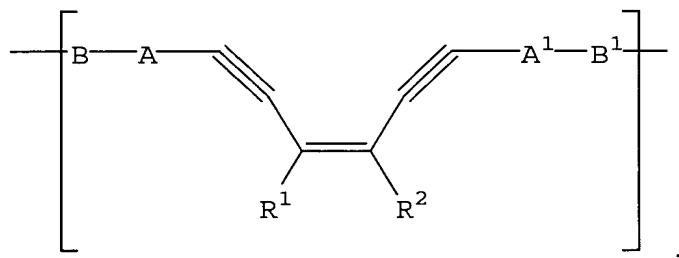


wherein the thiols located within the brackets defining said porphyrazine are uncomplexed or are optionally complexed with at least one additional metal complex of the formula:



wherein M^1 and M^2 are the same or different and each is a metal selected from the group consisting of Ti, V, Mn, Fe, Co, Ni, Cu, Zn, Ga, Tb, Eu, Gd, Dy, Lu, Zr, Nb, Mo, Te, Ru, Rh, Pd, Ag, Sn, Ta, W, Re, Os, Ir, Pt, and Au; and

Q^3 is an enediye of the formula:



wherein:

A and A^1 are the same or different and each is independently $(CR^{12}R^{13})_m$, wherein m is an integer from 0 to 6 and wherein R^{12} and R^{13} are the same or different and each is hydrogen, halogen, nitro, cyano, azido, an optionally substituted organic group selected from the group consisting of C_1-C_6 alkyl or aryl, or a solubilizing group selected from the group consisting of hydroxyl, an amino or acid addition salt thereof, an ammonium salt, sulfonic acid or salt thereof, or carboxylic acid or salt thereof;

n is an integer from 1-3;

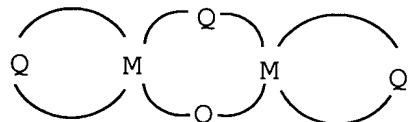
B and B¹ are the same or different and each is a substituent comprising a nitrogen-, oxygen-, sulfur-, or phosphorus-containing or oxygen-containing group capable of complexing with M, wherein a covalent bond can be optionally present between B and B¹;

R¹ and R² are the same or different and each is independently a hydrogen, a linear or branched alkyl, an aralkyl, an aryl, a halogen, a nitro, or a cyano, or R¹ and R² together with the carbons to which they are bonded comprise an aryl, a heterocycle, or a macrocycle, wherein R¹ and R² is unsubstituted or substituted.

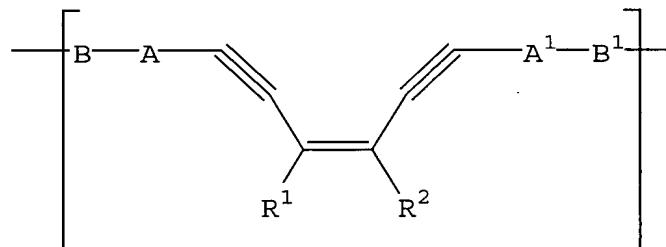
34. (Original) The compound of claim 1, wherein said compound is a dimer, an oligomer, or a polymer.

35. (Original) The compound of claim 34, wherein said compound is a dimer.

36. (Currently amended) The compound of claim 35, wherein said compound is a dimer of the formula:



wherein Q is an enediyne of the formula:



wherein:

A and A¹ are the same or different and each is independently (CR¹²R¹³)_m, wherein m is an integer from 0 to 6 and wherein R¹² and R¹³ are the same or different and each is hydrogen, halogen, nitro, cyano, azido, an optionally substituted organic group selected from the group consisting of C₁-C₆ alkyl or aryl, or a solubilizing group selected from the group

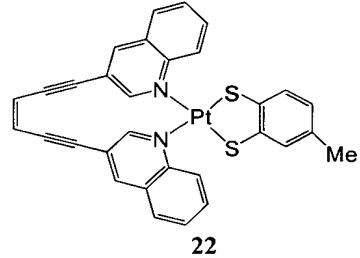
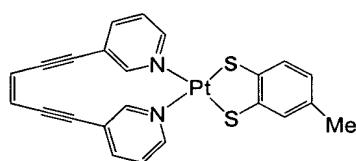
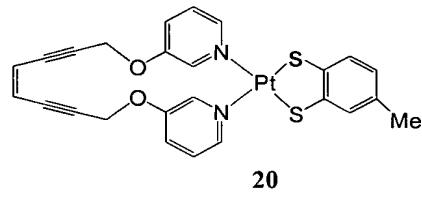
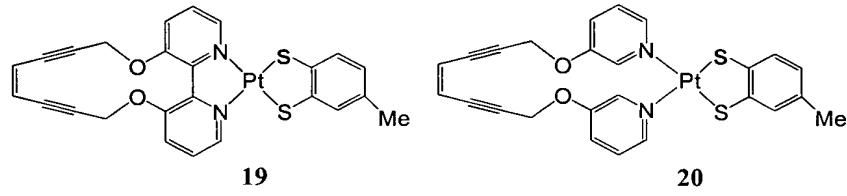
consisting of hydroxyl, an amino or acid addition salt thereof, an ammonium salt, sulfonic acid or salt thereof, or carboxylic acid or salt thereof;

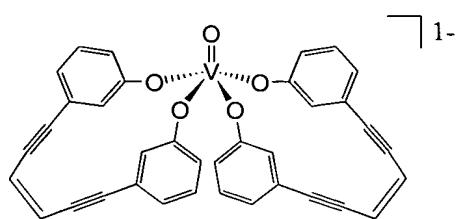
n is an integer from 1-3;

B and B¹ are the same or different and each is a substituent comprising a nitrogen-, oxygen-, sulfur-, or phosphorus-containing or oxygen-containing group capable of complexing with M, wherein a covalent bond can be optionally present between B and B¹;

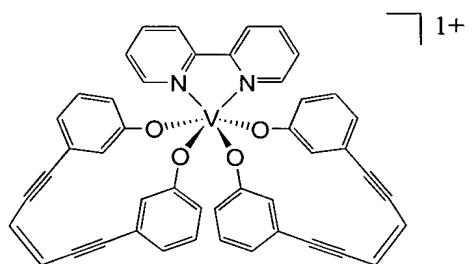
R¹ and R² are the same or different and each is independently a hydrogen, a linear or branched alkyl, an aralkyl, an aryl, a halogen, a nitro, or a cyano, or R¹ and R² together with the carbons to which they are bonded comprise an aryl, a heterocycle, or a macrocycle, wherein R¹ and R² is unsubstituted or substituted.

37. (Original) The compound of claim 1, wherein the compound is selected from one of the following compounds:





23



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38. (Canceled)

39. (Original) The compound of claim 1, wherein said compound is (1,2-bis(pyridine-3-oxy)oct-4-ene-2,6-diyne)copper(I).

40. (Original) The compound of claim 1, wherein said compound is (1,2-bis(pyridine-3-oxy)oct-4-ene-2,6-diyne)copper(II).

41.-116. (Canceled)